Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A method of substantially removing jitter from a stream of packets transmitted from a transmission site to a reception site, the method comprising the steps of:

receiving from a transmission site at an intermediate site a stream of frames, wherein each frame encapsulates at least one packet therein;

de-encapsulating the at least one packet from each frame of the stream of frames;

providing the packets to a memory;

buffering packets of the stream of packets in [[a]] the memory at [[an]] the intermediate site interposing the transmission site and the reception site, wherein selected packets of the stream of packets include timestamps having time values for an external clock;

locking a first local clock with the time values of the timestamps included in the selected packets to the external clock; ~~and~~

extracting packets from the memory at a nominal rate controlled by a second local clock, wherein the second local clock is locked with the time values of the timestamps of the selected packets extracted from the ~~buffer~~ memory based on the first local clock; and

prior to the step of locking:

calculating an average bit rate for the received stream of frames between a first timestamp and a second timestamp;

calculating an offset for the second timestamp using the average bit rate; and

subtracting the offset from the time value of the second timestamp.

2-3. Cancelled.

4. (Currently Amended) The method of claim [[3]] 1, wherein the step of calculating the average bit rate further includes the steps of:

receiving a first particular frame of the stream of frames, the first particular frame having a first particular selected packet having the first timestamp therein;

receiving a second particular frame of the stream of frames, the second particular frame having a second particular selected packet having the second timestamp therein;

determining the number of bits of packets between the first timestamp and the second timestamp inclusive of either the first timestamp or the second timestamp; and

dividing the number of bits by the time difference between the first timestamp and the second timestamp.

5. (Currently Amended) The method of claim [[3]] 1, wherein the step of calculating the offset further includes the steps of:

receiving a particular frame of the stream of frames having multiple sequential packets including a particular selected packet having the second timestamp therein;

determining the number of bits of packets between the particular packet and the start of the sequence of the multiple packets; and

dividing the number of bits by the average bit rate.

6. (Currently Amended) The method of claim 1, further including the step of:

recording a time measured relative to the second local clock, wherein the recorded time is associated with when one of the selected packets is extracted from the memory.

7. (Currently Amended) The method of claim 6, further including the step of:

stamping a new time in the timestamp of the selected packets, wherein for each selected packet the new time compensates for variable delay between when the each selected packet is transmitted from the intermediate site and when the each selected packet was extracted from the memory; and

transmitting from the intermediate site packets extracted from the memory, wherein the time values of the timestamps in the each selected packets are transmitted substantially jitter free.

8. (Currently Amended) The method of claim 1, further including the step of: stamping a new time in the timestamp of the selected packets extracted from the memory using the second local clock to set the new time.

9. (Currently Amended) The method of claim 1, further including the steps of:

recording an extraction time for each selected packet extracted from the ~~buffer~~ memory, wherein the extraction time for each selected packet corresponds to the time of the second local clock when the selected packet was extracted from the memory;

associating each extracted selected packet with its extraction time;

determining a variable delay time for each extracted selected packet using the extraction time for the extracted selected packet, wherein the variable delay time corresponds to the delay between extraction from the memory and transmission from the intermediate site of the packet;

determining a new time value for the timestamp of each selected packet using the variable delay time and the second local clock.

10. (Original) A method of substantially removing jitter from a stream of packets transmitted from a transmission site to a reception site, the method comprising the steps of:

receiving at an intermediate site a stream of frames, each frame encapsulating a set of packets, wherein selected packets include a timestamp defining a time value for a clock external to the intermediate site;

de-encapsulating the set of packets from each frame;

determining whether the set of packets from each frame includes a given selected packet having a timestamp therein;

responsive to the set of packets including the given selected packet, determining a time offset for the given selected packet, wherein the time offset is based upon the position of the given selected packet within the frame in which the given selected packet was received, and stamping a new time value in the timestamp of the given selected packet, wherein the new time value is defined by subtracting the time offset from the time value for the external clock; and

transmitting the packets from the intermediate site at a predetermined rate.

11. (Currently Amended) The method of claim 10, wherein the step of determining a time offset further includes the steps of:

calculating for the stream of frames an average bit rate, wherein the average bit rate is defined as the number of bits [[of]] or packets between a first timestamp included in a first selected packet and a second timestamp included in a second selected packet inclusive of either the number of bits in the first [[of]] or the second timestamp divided by the change in time between the time values of the first and second timestamps;

determining for the set of packets that includes the given selected packet the number of packet bits between the start of the set of packets and the first bit in the given selected packet; and

dividing the number of packet bits by the average bit rate to generate the time offset.

12. (Currently Amended) The method of claim 10, further including the steps of:

recording a first local clock time for each selected packet, the first local clock time corresponding to when the frame carrying the each selected packet arrived at the intermediate site;

buffering in a memory the packets carried by the stream of frames;

extracting packets from the memory at a rate clocked by the second local clock; and

prior to transmitting each selected packet, recording a second local clock time and generating calculating for the stream of frames an average bit rate, wherein the average bit rate is defined as the number of bits of packets between a first timestamp included in a first selected packet and a second timestamp included in a second selected packet inclusive of either the number of bits in the first [[of]] or the second timestamp divided by the change in time between the time values of the first and second timestamps;

determining for the set of packets that includes the given selected packet the number of packet bits between the start of the set of packets and the first bit in the given selected packet; and

dividing the number of packets bits by the average bit rate to generate a transmission time.

13. (Currently Amended) An apparatus for substantially removing jitter from a stream of packets transmitted from a transmission site to a reception site, the apparatus located at an intermediate site and comprising:

a buffer having packets of the stream stored therein, wherein selected packets of the stream of packets include a timestamp, each timestamp having a time value from a clock external to the apparatus stamped therein;

a buffer controller adapted to extract time values from the selected packets and extract packets from the buffer;

a first locked loop having a first local clock, the first locked loop receiving time values from the buffer controller and locking the first clock thereto, wherein individual time values received by the first local clock are modified by subtracting a clumping error estimate therefrom, the clumping error estimate being based on an average bit rate of the stream of packets;

a second locked loop having a second local clock, the second locked loop receiving timing information relative to the first local clock and locking the second local clock thereto,

wherein the buffer controller receives timing signals from the second local clock and extracts buffered packets at a rate measured relative to the second local clock.

14. (Original) The apparatus of claim 13, further including:

a transmitter adapted to receive packets extracted from the buffer and transmit the packets therefrom, wherein the time value for each selected packet extracted from the buffer is set relative to the second local clock.

15. (Original) The apparatus of claim 13, wherein responsive to the buffer receiving a given selected packet, the buffer controller provides the first locked loop with the time value of the given selected packet.

16. (Original) The apparatus of claim 13, wherein responsive to the buffer controller extracting a given selected packet from the buffer, the buffer controller provides the second locked loop with the time value of the given selected packet.

17. (Original) The apparatus of claim 13, further including:

means for receiving a stream of frames, each frame of the stream of frames encapsulating a set of packets of the stream of packets arranged in a given order; and

an unencapsulator adapted to unecapsulate the set of packets from each frame of the stream of frames and to provide the packets of each set to the buffer in the given order.

18. (Original) The apparatus of claim 17, wherein the unencapsulator is further adapted to determine a temporal offset for a given selected packet included in a given set of packets by the location of the given selected packet in the given set of packets.

19. (Original) The apparatus of claim 18, wherein the unencapsulator is further adapted to determine a new time value by subtracting the temporal offset from the time value of the timestamp of the given selected packet and stamp the new time value in the timestamp of the given selected packet.

20. (Original) The apparatus of claim 13, wherein the timing information received by the second locked loop is the current time of the first local clock minus an offset.

21. (Original) The apparatus of claim 20, wherein the offset is a predetermined time corresponding to desired length of time that a given packet resides in the buffer.

22. (Currently Amended) An apparatus for substantially removing jitter from a stream of transport packets transmitted from a transmission site to a reception site, the apparatus located at an intermediate site and comprising:

an input port adapted to receive a stream of network frames carrying the stream of transport packets;

a de-encapsulator in communication with the input port adapted to extract the transport packets from the network frames;

a buffer in communication with the de-encapsulator having transport packets of the stream of transport packets stored therein, wherein selected transport packets include a timestamp, each timestamp having a time value from a clock external to the apparatus stamped therein;

a first locked loop having a first local clock, wherein the first locked loop receives a time value related to the timestamp of the last buffered selected packet for locking the first local clock thereto;

a buffer controller in communication with the buffer and the first locked loop, the buffer controller adapted to provide the time value related to the timestamp of the last buffered selected

packet to the first locked loop minus a clumping error estimate that is based on an average bit rate of the stream of transport packets and extract packets from the buffer at a predetermined rate on a first-in first-out basis, and wherein the rate of extraction is such that the extracted packets are substantially jitter free; and

a second locked loop in communication with the buffer controller and the first locked loop, the second locked loop having a second local clock, the second locked loop receiving timing information relative to the first local clock and locking the second local clock thereto, wherein the buffer controller receives timing signals from the second local clock and the rate of extraction is measured relative to the second local clock.

23. (Original) The apparatus of claim 22, further including:

a transmitter adapted to receive packets extracted from the buffer and transmit the packets therefrom, wherein the time value for each selected packet extracted from the buffer is set relative to the second local clock.

24. (Original) The apparatus of claim 22, wherein responsive to the buffer receiving a given selected packet, the buffer controller provides the first locked loop with the time value of the given selected packet.

25. (Original) The apparatus of claim 22, wherein the buffer controller provides feedback to the second locked loop.

26. (Original) The apparatus of claim 25, wherein responsive to the current first-in transport packet being one of the selected transport packets, the feedback provided by the buffer controller is related to the time value of current first-in transport packet.